Talank Baral

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Overview

I'm a PhD student in Computer Science at George Mason University, researching ways to make software development faster and more reliable. Before starting my PhD, I worked as a Software Developer, where I experienced challenges with slow testing. My research focuses on developing solutions to address these testing challenges I encountered in industry.

Publications

Talank Baral, Shanto Rahman, Bala Naren Chanumolu, Basak Balci, Tuna Tuncer, August Shi, and Wing Lam. **"Optimizing Continuous Development By Detecting and Preventing Unnecessary Content Generation."** 38th Annual International Conference on Automated Software Engineering, pages 901–913, Kirchberg, Luxembourg, 2023. Acceptance rate: 21% (134/630) *ASE'23 [1]*

Talank Baral, Emirhan Oğul, Shanto Rahman, August Shi, Wing Lam. **"OptCD: Optimizing Continuous Development."** 47th International Conference on Software Engineering, Ontario, Canada, 2025. *ICSE'25 [2]*

Education

George Mason University   **Aug 2022 – Now**
PhD in Computer Science, CGPA: 3.97   *Fairfax, VA, USA*

Pokhara University   **Aug 2015 – Aug 2019**
Bachelors in Software Engineering, CGPA: 3.67   *Pokhara, Nepal*

Experience

George Mason University   **(Spring, Summer, and Fall) 2023, 2024**
Graduate Research Assistant   *Fairfax, VA, USA*
- Worked on research including the topic Continuous Integration and Software Testing, AI and Software Engineering

George Mason University   **Fall 2022**
Graduate Teaching Assistant   *Fairfax, VA, USA*
- Worked as a Graduate Teaching Assistant for the class CS262 (Introduction to Low-level Programming)

JankariTech   **Jan 2020 – Aug 2022**
Software Developer   *Pokhara, Nepal*
- Helped different customers of JankariTech set up test automation
- Worked with OwnCloud, a client of JankariTech. OwnCloud is a German software company that works on content collaboration software. At work, my primary task included setting up test automation, CI pipelines, and writing and maintaining tests for different services of OwnCloud

Technical Skills

Programming Languages:	Python, Bash, Java, SQL, YAML
Industry Skills:	Industry Knowledge: Test Automation, Software Development
Research Skills:	Test Automation, Software Testing
Tools:	Git, CI/CD

Grants and Awards

SIGSOFT CAPS Grant **Aug 2023**

Awarded a travel reimbursement of $1,200.00 for ASE'23. Didn't accept the offer because of visa issues

Summer 2023 Research Award - George Mason University **May 2023**

Awarded by the College of Engineering & Computing, Department of Computer Science

First position in Project Expo at 7th GCES IT EXPO 2018 **Feb 2018**

Awarded by Gandaki College of Engineering and Science, Pokhara University, Pokhara

Undergraduate Academic Excellence Award **Jan 2016 - Aug 2019**

Awarded by Gandaki College of Engineering and Science, Pokhara University, Pokhara

Notable Open-Source Contributions

pact-cplusplus

Fixed compilation issues in pact-cplusplus in version 0.1.0 (https://github.com/pact-foundation/pact-cplusplus)

International Dataset of Flaky Tests (IDoFT)

Contributed to the IDoFT by adding and fixing some flaky tests (https://github.com/TestingResearchIllinois/idoft)

Several projects to optimize their CI builds

Submitted 25 PRs in several open-source projects, disabling generation of unnecessary directories in CI builds

OwnCloud

Automated several test cases for open-source Web and Desktop application of OwnCloud (https://github.com/owncloud/client)

avocode-email-tagsinput

Web-UI test automation for avocode-email-tagsinput (https://github.com/avocode/avocode-email-tagsinput)